

CLAIMS

1. An image signal reproduction apparatus for reproducing a main image signal including either a first type of image signal obtained by converting a film material image into an electrical signal or a second type of image signal including a video signal as a material thereof, using a transfer information including the main image signal and a determination flag for determining whether the main image signal is the first type of image signal or the second type of image signal, the apparatus including:

a first timing signal generation section for outputting a first timing signal indicating a field to be repeatedly output in the case where the main image signal is the first type of image signal;

a first material determination section for determining whether the main image signal is the first type of image signal or the second type of image signal, based on the determination flag;

an interlaced scanned image signal reproduction section for converting the main image signal to an interlaced scanned image signal of 60 fields per second in response to an output of the first timing signal generation section when the first material determination section determines that the main image signal is the first type of image signal, and outputting the main image signal as it is when the first material determination section determines that the main image signal is the second type of image signal;

a field memory for storing 2 fields of outputs of the interlaced scanned image signal reproduction section;

a field difference detection section for detecting a difference between an output of the interlaced scanned image signal reproduction section and an output of the field

memory;

a second material determination section for determining whether the main image signal is the first type of image signal or the second type of image signal, based on an output of the first material determination section or on outputs of the first timing signal generation section and the field difference detection section;

a second timing signal generation section for generating a second timing signal indicating a breakpoint between frames of the film material in the interlaced scanned image signal, based on an output of the field difference detection section when the second material detection section detects that the main image signal is the first type of image signal; and

a progressive scanning conversion section for obtaining a progressive scanned image signal by synthesizing 2 fields of interlaced scanned image signals of 60 fields per second in response to the second timing signal when a generation method of an insertion scanning signal is changed in response to an output of the second material determination section and the second material determination section determines that the main image signal is the first type of image signal.

2. A image signal reproduction apparatus according to claim 1, wherein the second material determination section determines that the main image signal is the first type of image signal when an output of the first material determination section or when a state of the timing generation section is in the state of the first type of image signal; even when the output of the first material determination section or the state of the timing generation section transitions from the state of the first type of image

signal to the state of the second type of image signal, if the field difference detection section detects a field matching in a given period, the second material determination section determines that the main image signal is the first type of image signal.

3. A image signal reproduction apparatus according to claim 2, wherein even when the output of the first material determination section or the state of the timing generation section transitions from the state of the first type of image signal to the state of the second type of image signal, if the field difference detection section detects a field matching every 5 fields, the second material determination section determines that the main image signal is the first type of image signal.

4. An image signal reproduction apparatus for reproducing an information signal including any one of a first image signal obtained by converting a film material into an electrical signal or a second image signal whose material is a video signal, the apparatus including:

an interlaced scanned image signal reproduction section for outputting the information signal as an interlaced scanned image signal of 60 fields per second;

a progressive scanning conversion section for converting the information signal to a progressive scanned image signal; and

a filtering section for changing a frequency characteristic of an output of the progressive scanning conversion circuit section.

5. An image signal reproduction apparatus according to claim 4, wherein an output of the interlaced scanned image

signal reproduction section is the input of the progressive scanning conversion section.

6. An image signal reproduction apparatus according to any one of claims 4 and 5, wherein the filtering section differentiates frequency characteristics between the first and second image signals.

7. An image signal reproduction apparatus according to any one of claims 4 to 6, wherein the frequency characteristic can be changed by a setting made by the user.

8. An image signal reproduction apparatus including:

an interlaced scanned image signal reproduction section for reproducing an image signal and an information signal including a determination signal determining the aspect ratio of the image signal as an interlaced scanned image signal of 60 fields per second;

a flag determination section for reading the determination flag;

a first aspect ratio conversion section for converting the aspect ratio of the interlaced scanned image signal;

a first setting section for setting the aspect ratio of an image receiver to which an output of the first aspect ratio conversion section is output;

a first control section for controlling the aspect ratio of an output of the first aspect ratio conversion section based on outputs of the first setting section and the flag determination section;

a progressive scanning conversion section for converting the output of the first aspect ratio conversion section to a progressive scanned image signal;

a second aspect ratio conversion section for converting the image signal into an aspect ratio different from the first aspect ratio of the output of the first aspect ratio conversion section;

a second setting section for setting the aspect ratio of an image receiver to which an output of the second aspect ratio conversion section is output; and

a second control section for controlling the aspect ratio of an output of the second aspect ratio conversion section based on outputs of the second setting section and the flag determination section.

9. An image signal reproduction apparatus according to claim 8, wherein the first aspect ratio conversion section has functions of compressing an input image signal in a vertical direction, and causing a blank portion to be a black image; and

the second aspect ratio conversion section has functions of compressing an input image signal in a horizontal direction, and causing a blank portion to be a black image.

10. An image signal reproduction apparatus according to claim 8, wherein the first aspect ratio conversion section has functions of compressing an input image signal in a vertical direction, and causing a blank portion as a result of the compression to be a black image; and

the second aspect ratio conversion section has either a function of compressing an input image signal in a horizontal direction, and causing a blank portion as a result of the compression to be a black image, or a function of expanding the image in the vertical direction.

11. An image signal reproduction apparatus according to any one of claims 8 to 10, wherein the determination flag includes at least two pieces of image information of an aspect ratio of 4:3, an aspect ratio of 16:9, and 16:9 image information in a screen having an aspect ratio of 4:3.

11. An image signal reproduction apparatus according to any one of claims 8 to 10, wherein the determination flag includes at least two pieces of image information of an aspect ratio of 4:3, an aspect ratio of 16:9, and 16:9 image information in a screen having an aspect ratio of 4:3.